



Study On Pradhan Mantri Ujjwala Yojana (Pmuy) Scheme And It's Effectiveness At Coimbatore City

Dr. M. Kalimuthu

Professor and Head, Department of Commerce with Professional Accounting,

Dr. N.G.P Arts and Science College, Coimbatore, Tamil Nadu.

Ms. S. Lakshana

Student, Department of Commerce with Professional Accounting,

Dr. N.G.P Arts and Science College, Coimbatore, Tamil Nadu.

Abstract

In India, around 10 crore families without access to LPG cooking fuel, depending on firewood, coal, and dung cakes as primary sources of cooking. Women are particularly affected as they are primarily responsible for cooking. By offering subsidized LPG connections, the initiative seeks to reduce dependence on traditional biomass fuels, thereby improving health outcomes and environmental sustainability. Effectiveness of the PMUY can be assessed through its impact on health improvements, reduction in indoor air pollution, and increased access to cleaner cooking options. Evaluations indicate a significant rise in LPG usage among beneficiaries, contributing to better respiratory health and quality of life. However, challenges such as the need for regular refills, awareness about usage, and the initial cost of connections persist. Overall, while the PMUY has made substantial progress in promoting clean energy access, ongoing support and awareness campaigns are crucial for sustaining its benefits and ensuring comprehensive coverage across all regions.

Keywords

Pradhan Mantri Ujjwala Yojana (PMUY), rural women, LPG connection, clean cooking fuel, welfare of women.

Introduction

The Pradhan Mantri Ujjwala Yojana (PMUY) is a significant social welfare program in India that attempts to give free connections to liquefied petroleum gas (LPG) to women from houses that fall below the poverty level. PMUY was established in 2016 with the goals of promoting clean cooking fuel, empowering women, and lowering the health hazards associated with traditional cooking methods. This project intends to improve the economic standing of women and assist contribute to a more sustainable and healthy future by switching from antiquated and inefficient cooking fuels to cutting-edge and efficient LPG. Due to economic and social progress, a significant segment of the population still lags behind, particularly the poor and rural landless peasant workers. In addition, they have not benefited from government programs or policies and have been left out of progress in society. Piped natural gas (PNG) and liquefied petroleum gas (LPG), the cleaner fuel, are not readily available in their area. The majority of cleaner fuel usage has shifted to semi-urban and

urban areas, mostly affecting middle-class and upper-class households. Providing LPG connections to homes below the poverty line (BPL) will guarantee that cooking gas is available everywhere in the country. Women will gain more influence and their health will be safeguarded by this measure. Cooking time and labour-intensive chores will decrease. Additionally, it will provide jobs in the cooking gas supply chain for young people who live in rural areas. The Cabinet Committee on Economic Affairs has approved PMUY, the Scheme for Providing Free LPG for Women from BPL Households, on the Prime Minister's instruction. In order to provide five crore BPL homes with LPG connections, funds totalling Rs.8000 crore have been made available.

In addition to offering financial assistance of Rs.1600 for each LPG connection, the Scheme offers interest-free loans to BPL households for the purchase of stoves and refills from Oil Marketing Companies. The administrative cost of each connection, which includes a safety hose, guide, pressure regulator, cylinder, and other equipment, would be covered by the government for Rs.1600. Replacing biofuel with LPG allows women to save time who are likely to then involve themselves in income generating activities and contribute to the economy which was otherwise spent on firewood collection and other cooking related activities. However, there is a need to supplement PMUY by augmenting other programs running on grass root level for awareness among the women.

Statement of the Problem

Delays and inefficiencies in the distribution process have hindered the timely provision of LPG connections to eligible beneficiaries. Some eligible households face difficulties in accessing the scheme due to lack of awareness, documentation requirements, or geographical remoteness. Despite receiving a free LPG connection under PMUY, ongoing costs related to refills and associated expenses may pose financial challenges to beneficiaries. Leakage of subsidies due to duplicate or ineligible beneficiaries has been a concern, leading to inefficiencies in resource allocation and undermining the scheme's effectiveness. Lack of awareness about proper usage and safety measures associated with LPG, leading to accidents and health hazards.

Scope of the Study

The scope of the study ranges from understanding the aim and benefits provided by Pradhan Mantri Ujjwala Yojana to the women belonging to the BPL category, the problems faced by them and also the level to which the program has been successful in improving their overall quality of life. The economic sustainability of LPG usage for beneficiaries, considering factors such as the affordability of refills, the financial burden on households, and the long-term cost-effectiveness. The effectiveness of policy frameworks supporting PMUY, identifying areas for policy refinement or improvement to enhance the overall impact and sustainability of the scheme.

Objectives of the Study

1. To analyse the effectiveness of Pradhan Mantri Ujjwala Yojana in reducing dependency on biofuel.
2. To identify the challenges and barriers faced in implementation of Pradhan Mantri Ujjwala Yojana in the state suggest measures to overcome them.
3. To analyse the level of satisfactions among Pradhan Mantri Ujjwala Yojana beneficiary.

Research Methodology

Research Design

A random sampling technique tool was used.

Source of Data

The Primary and Secondary data are required for this study. The Primary data has been collected using the Questionnaire method.

Sampling Size

The study is focused on Primary Data which has been collected from 150 respondents.

Area of the Study

The area of the study is in reference to Coimbatore City.

Tools Used for Analysis

1. Simple percentage analysis.
2. Likert scale analysis.

Limitation of the Study

1. The area of study is limited to Coimbatore.
2. The number of respondents is limited to 150 respondents.
3. The data is collected from the Below Poverty People.

Review of Literature

Nivedita Pandey and Abhishek Vaishnava (2023)¹, PMUY's effects go far beyond the boundaries of the kitchen. Previously bound by domesticity, women now felt a sense of independence and confidence. This initiative demonstrated that the key to feminine potential extends beyond the clean biofuel. The PMUY's beating heart, providing vitality for its implementation. Women were the hidden heroes who worked endlessly to gather firewood and cook over smoky fires, frequently going unnoticed and unappreciated for their efforts. Now, PMUY is subtly changing that narrative. By providing LPG cylinders, it identifies the importance of women's work, and in doing so, it gently pushes the scales of gender equality toward balance. The mixed-method approach that combines qualitative and quantitative methodologies.

Bijaylaxmi Behera and Biswajit Mallick (2023)², Social and Institutional by the farmers in adoption of groundnut cultivation technology. In the research, constraints perceived by both dealers and households were categorized into four broad constraints, viz., Social constraint, Cultural constraint, Economic constraint, and Physical constraint. The paper may provide a better insight into the grassroots level constraints for implementation and acceptance of Pradhan Mantri Ujjwala Yojana in rural villages of India. Primary data was collected through Individual constraints under four broad constraints were ranked by using Garrett's ranking method through MS Excel.

Priya Rani and Dr. Garre Satya Srinivasa Gopinath (2023)³, The study recommends measures such as increasing awareness among beneficiaries, providing additional support for refill services, and promoting digital payment modes for transactions. The study contributes to the existing literature on the PMUY and provides insights for policymakers and other stakeholders to enhance the effectiveness of the scheme in promoting access to clean cooking fuel. The methodology will involve conducting a survey of rural households in Himachal Pradesh to collect primary data, followed by a descriptive and analytical analysis of the data.

Vani Dhaka and Radhika Narula (2022)⁴, Our primary objective is to analyse the condition of women following the implementation of the Ujjwala Yojana and determine to what extent women have benefited from it. To undertake complete investigation in this regard, we attempted to thoroughly read the Yojana and mention what was written under it. The loan is recovered by the consumer subsidy on LPG refills under Direct Benefit Transfer for LPG (DBTL). PMUY is expected to result in an additional one lakh jobs and at least Rs.10000 crores in commercial opportunities for the Indian sector. We attempted to analyse where the Yojana was actually successful on the ground and where it lagged. The methodology that was adopted. The methodology that has been adopted is a hybrid technique of using both primary and secondary data.

Balasaheb kilche (2022)⁵, Under this the government provides free LPG gas connection, one filled cylinder and two burner stoves to the beneficiaries. Also, although the first refill is being provided free of cost to the beneficiaries by the government, it is necessary to check the utility of the distributed gas connection in view of the implementation of this scheme. Primary and secondary Source have been used for this research. The survey, descriptive and analytical method is used.

History of Pradhan Mantri Ujjwala Yojana Scheme

Shri Narendra Modi, the Honourable Prime Minister of India, launched the Pradhan Mantri Ujjwala Yojana on January 5, 2016, from the Ballia district of Uttar Pradesh. The Ujjwala Yojana, launched in 2016, was an ambitious federal government plan to provide five crore free cooking gas connections to all households with children living below the poverty line in just three years, by 2019. The government intends to provide cooking gas to underprivileged households. The program aims to replace most cooking fuels in rural India

with clean liquefied petroleum gas (LPG). The program enables the government to provide disadvantaged women with cooking gas connections and cash assistance over a three-year period. Eligible families are determined using the 2011 Socio-Economic Caste Census. The Ujjwala scheme provides qualified households with Rs.1, 600 for each cooking gas connection. The links are included in a list of female heads of households. The government also provides a comparable monthly payment plan to cover the cost of the stove and refills. The government allocated INR 80 billion to the project to provide a subsidy of INR 1,600 per connection for delivering 50 million LPG connections to BPL (Below Poverty Line) families over a three-year period, from 2016 to 2019. The target for beneficiaries was later increased to 80 million BPL families by 2019-20.

Benefits of the Scheme

1. Major shift of people from traditional method of cooking towards smokeless cooking.
2. Providing free LPG connections to women from Below Poverty Line (BPL) households, promoting clean cooking fuel.
3. Reducing indoor air pollution, improving health outcomes, especially for women and Children.

Significance of Pradhan Mantri Ujjwala Yojana

The release of an LPG connection under this Scheme must be in the name of a woman from a BPL family, allowing the women to benefit from the subsidy provision in their accounts. Furthermore, using LPG saves time for women because they do not have to obtain solid fuel and then utilize it for cooking, allowing them to spend their cooking time more productively. Women in several communities organized self-help clubs to participate in communal economic activities in their spare time. Stopping the usage of firewood has a definite positive influence on forest cover and environmental quality. The scheme's safety precautions include providing safety instructions, distributing safety information, and raising awareness about safe handling and use of LPG cylinders to avoid accidents. Furthermore, the initiative also offers financial support for the installation of safety equipment such as regulators, gas burners, and rubber tubes to improve safety standards. Reduces the risk of respiratory diseases, vision problems, and other health issues caused by indoor air pollution.

Disadvantages of Scheme

1. The initiative prioritizes LPG connections, potentially leading to reliance on a single fuel source and ignoring renewable energy alternatives.
2. Implementation hurdles such as delays in distribution, inadequate infrastructure, and bureaucratic inefficiencies have been reported, leading to slower progress in reaching the intended beneficiaries.
3. While LPG is cleaner compared to traditional solid fuels like wood or dung, its combustion still emits greenhouse gases and contributes to indoor air pollution, albeit to a lesser extent.
4. Inadequate training and education on the safe handling, storage, and use of LPG may result in accidents, injuries, or poor fuel consumption.

Implementing of Pradhan Mantri Ujjwala Yojana

The Pradhan Mantri Ujjwala Yojana (PMUJ) aims to provide clean cooking fuel to disadvantaged people across the country. The Central Government began this social benefit plan on May 1, 2016 in Ballia. Uttar Pradesh aims to replace filthy cooking fuels with clean and efficient Liquefied Petroleum Gas (LPG) through five crore LPG connections for rural women in Below Poverty Line (PBL) homes nationwide. This plan is now implemented in 35 states and all union territories. The project aims to empower women, ensure their health and safety, and prevent deaths. Indoor air pollution from fossil fuel combustion is a major cause of acute respiratory infections in children.

Documents Required

1. Know Your Customer (KYC)
2. Aadhaar Card of applicant as Proof of Identity and Proof of Address in case applicant is residing at the same address as mentioned in Aadhaar (not mandatory for Assam and Meghalaya).
3. Ration Card issued by the State from which application is being made/ other State Govt. document certifying family composition/ Self-Declaration as per Annexure I (for migrant applicants)
4. Aadhaar of beneficiary and adult family members appearing in document at Sl.3.
5. Bank Account Number and IFSC Supplementary KYC to support status of the family.

Eligibility Criteria

- 1) Adult woman belonging to any of the following categories.
 - a) SC Households
 - b) ST Households
 - c) Pradhan Mantri Awas Yojana (Gramin)
 - d) Most Backward Classes
 - e) Tea and Ex- Tea Garden tribes
 - f) Forest Dwellers
 - g) People residing in Islands and River Islands
 - h) SECC Households (AHL TIN)
 - i) Poor Household as per 14-point declaration
 - j) Applicant must have attained 18 years of age.
- 2) Should be an Indian citizen
- 3) Should be a woman from a BPL family who doesn't have LPG connection

LPG Distributors for Pmuy Scheme

The three public sector undertaking (PSU) oil company names,

1. Indian Oil Corporation Limited (IOCL),
2. Bharat Petroleum Corporation Limited (BPCL), and
3. Hindustan Petroleum Corporation Limited (HPCL) meet the entire demand of the household LPG market.

Data Analysis and Interpretation

The data collected from the samples have systematically applied and presented in tables under various headings in the following pages. They were also arranged in such a way that a detailed analysis can be made so as to present suitable interpretations for the same. The Statistical tools namely simple percentage analysis and Likert scale and interpretation of data.

TABLE SHOWING THE COOKING FUEL USED BEFORE LPG OF REpondENTS

S.NO	FUEL USED BEFORE CONVERTING TO LPG	NO OF RESPONDENTS	PERCENTAGE (%)
1	Firewood	46	31
2	Cow dung	35	23
3	Coal	57	38
4	Other	12	8
	Total	150	100

(Source: Primary Data)

Interpretation

The table shows that out of 150 respondents, 31% of the respondents are Firewood and 23% of the respondents are Cow dung and 38% of the respondents are Coal and 8% of the respondents are other.

TABLE SHOWING HOW THE REpondENTS CAME TO AWARE OF SCHEME

S.NO	AWARENESS OF THE SCHEME THROUGH	NO OF RESPONDENTS	PERCENTAGE (%)
1	Advertisement	56	38
2	Social media	73	49
3	Pamphlet	19	13
	Total	150	100

(Source: Primary Data)

Interpretation

The table shows that out of 150 respondents, 38% of the respondents are Advertisement and 49% of the respondents are social media and 13% of the respondents are Pamphlet.

TABLE SHOWING THE AWARENESS ABOUT SCHEME OF RESPONDENTS

S.NO	AWARENESS ABOUT THE SCHEME	NO OF RESPONDENTS	PERCENTAGE (%)
1	Yes	150	100
2	No	0	0
	Total	150	100

(Source: Primary Data)

Interpretation

The table shows that out of 150 respondents, 90% of the respondents are yes and 10% of the respondents are No.

TABLE SHOWING HOW CRUCIAL FOR RESPONDENTS TO CONVERT FROM TRADITIONAL COOKING TO LPG

S.NO	IMPORTANCE TO CONVERT FROM TRADITIONAL COOKING TO MODERN LPG	NO OF RESPONDENTS	PERCENTAGE (%)
1	Very crucial	87	58
2	Moderately crucial	59	39
3	Not crucial at all	4	3
	TOTAL	150	100

(Source: Primary Data).

Interpretation

The table shows that out of 150 respondents, 38% of the respondents are very crucial and 39% of the respondents are moderately crucial and 3% of the respondents are not crucial at all.

TABLE SHOWING THE LPG PROCUREMENT OF THE RESPONDENTS

S.NO	LPG PROCUREMENT	NO OF RESPONDENTS	PERCENTAGE (%)
1	Door step delivery	100	67
2	Self	50	33
	TOTAL	150	100

(Source: Primary Data)

Interpretation

The table shows that out of 150 respondents, 67% of the respondents are Door step delivery and 33% of the respondents are Self.

TABLE SHOWING THE METHODS FOR BOOKING GAS OF THE RESPONDENT

S.NO	METHODS FOR BOOKING GAS	NO OF RESPONDENTS	PERCENTAGE (%)
1	Telephone booking	63	42
2	Online booking through website	59	39
3	Visiting the distributor person	29	19
	TOTAL	150	100

(Source: Primary Data)

INTERPRETATION:

The table shows that out of 150 respondents, 42% of the respondents are Telephone booking and 39% of the respondents are Online booking through website and 16% the respondents are visiting the distributor person.

TABLE SHOWING THE CHALLENGES OR DIFFICULTIES FACED IN REFILLING YOUR LPG GAS CYLINDER IN THE PAST

S.NO	CHALLENGES FACED WHILE BOOKING GAS	NO OF RESPONDENTS	PERCENTAGE (%)
1	Long waiting times at the distributor	39	26
2	Financial constraints of afford to refills	103	69
3	Accessibility issues to reach the distributor	8	5
	TOTAL	150	100

(Source: Primary Data)

Interpretation

The table shows that out of 150 respondents, 26% of the respondents are long waiting time at the distributor and 69% of the respondents are financial constraints to afford refills and 5% of the respondents are accessibility issues to reach the distributor.

TABLE SHOWING THE DIFFICULTIES FACED BY THE RESPONDENTS WHEN BOOKING LPG GAS

S.NO	DIFFICULTIES FACED BY THE RESPONDENTS	NO OF RESPONDENTS	PERCENTAGE (%)
1	Difficulty reaching customer services	49	33
2	Long waiting times for delivery	38	25
	Technical with online booking	63	42
	TOTAL	150	100

(Source: Primary Data)

Interpretation

The table shows that out of 150 respondents, 33% of the respondents are Difficulty reaching customer services and 25% of the respondents are long waiting times for delivery and 42% of the respondents are technical issues with online booking.

TABLE SHOWING THE LINGUISTIC BARRIER WHILE CONNECTING LPG GAS OF RESPONDENTS

S .NO	LINGUISTIC BARRIERS WHILE CONNECTING LPG	NO OF RESPONDENTS	PERCENTAGE (%)
1	Yes	50	33
2	No	100	68
	Total	150	100

(Source: Primary Data)

Interpretation

The table shows that out of 150 respondents, 33% of the respondents are yes. It is revealed that 67% of the respondents are No.

Likert Scale Analysis

TABLE SHOWING THE SATISFACTION OF RESPONDENTS WHILE USING PMUY SCHEME

S.NO	FACTOR	NO OF RESPONDENTS	LIKERT SCALE(X)	TOTAL(FX)
1	Highly Satisfied	65	5	325
2	Satisfied	25	4	100
3	Neutral	25	3	75
4	Dissatisfied	16	2	32
5	Highly dissatisfied	19	1	19
	Total	150		551

(Source: Primary Data)

Likert Scale = $\sum (FX) / \text{Total no of respondents}$

$$= 551/150$$

$$= 3.6$$

Likert scale value 3.6 is greater than the middle value (3), so the customers are Satisfied with experience.

Suggestions

1. Ensure the quality and safety of LPG cylinders distributed under the PMUY scheme by implementing stringent quality control measures.
2. Regular inspections of distributors, training programs for personnel handling cylinders, and awareness campaigns for beneficiaries on safe usage practices can help maintain high standards.
3. Invest in the expansion and maintenance of LPG distribution infrastructure in rural and remote areas.
4. This includes building new distribution centres, upgrading transportation networks, and ensuring timely availability of cylinders to meet the demand.

Conclusion

The study found that PMUY users are satisfied with connection subsidies, LPG refill availability, and training opportunities. The beneficiaries were satisfied with the streamlining of Kitchen work and leisure time spent cooking. Adoption of socio-technical solutions, including improved cooking technology. Efficient utilization of biomass and electric or LPG cook stoves are essential for lowering negative pollution. Women are using less conventional cooking fuels in their homes, resulting in lower carbon emissions. Connecting to LPG through the PMUY program offers environmental benefits for women.

Reference

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Website

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